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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2007; month=12; day=3; hr=15; min=53; sec=48; ms=838; ]

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Application No: 10757077 Version No: 5.0

**Input Set:**

**Output Set:**

**Started:** 2007-11-09 16:10:30.175  
**Finished:** 2007-11-09 16:10:37.437  
**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 262 ms  
**Total Warnings:** 136  
**Total Errors:** 24  
**No. of SeqIDs Defined:** 148  
**Actual SeqID Count:** 148

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 402	Undefined organism found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)

**Input Set:**

**Output Set:**

**Started:** 2007-11-09 16:10:30.175  
**Finished:** 2007-11-09 16:10:37.437  
**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 262 ms  
**Total Warnings:** 136  
**Total Errors:** 24  
**No. of SeqIDs Defined:** 148  
**Actual SeqID Count:** 148

Error code	Error Description
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (23)
W 213	Artificial or Unknown found in <213> in SEQ ID (24)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (24)
W 213	Artificial or Unknown found in <213> in SEQ ID (25)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (25)
W 213	Artificial or Unknown found in <213> in SEQ ID (26)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (26)
W 402	Undefined organism found in <213> in SEQ ID (27)
W 402	Undefined organism found in <213> in SEQ ID (28)
W 402	Undefined organism found in <213> in SEQ ID (29)
W 402	Undefined organism found in <213> in SEQ ID (30)
W 402	Undefined organism found in <213> in SEQ ID (31)
W 402	Undefined organism found in <213> in SEQ ID (32)
W 402	Undefined organism found in <213> in SEQ ID (33)
W 402	Undefined organism found in <213> in SEQ ID (34)
W 402	Undefined organism found in <213> in SEQ ID (35)
W 402	Undefined organism found in <213> in SEQ ID (36)
W 402	Undefined organism found in <213> in SEQ ID (37)
W 402	Undefined organism found in <213> in SEQ ID (38)
W 402	Undefined organism found in <213> in SEQ ID (39)

**Input Set:**

**Output Set:**

**Started:** 2007-11-09 16:10:30.175  
**Finished:** 2007-11-09 16:10:37.437  
**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 262 ms  
**Total Warnings:** 136  
**Total Errors:** 24  
**No. of SeqIDs Defined:** 148  
**Actual SeqID Count:** 148

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (40)
W 402	Undefined organism found in <213> in SEQ ID (41)
W 402	Undefined organism found in <213> in SEQ ID (42) This error has occurred more than 20 times, will not be displayed
E 201	Mandatory field data missing in <223> in SEQ ID (128)
W 213	Artificial or Unknown found in <213> in SEQ ID (136)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (136)
W 213	Artificial or Unknown found in <213> in SEQ ID (137)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (137)
W 213	Artificial or Unknown found in <213> in SEQ ID (138)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (138)
W 213	Artificial or Unknown found in <213> in SEQ ID (139)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (139)
W 213	Artificial or Unknown found in <213> in SEQ ID (140)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (140)
W 213	Artificial or Unknown found in <213> in SEQ ID (141)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (141)
W 213	Artificial or Unknown found in <213> in SEQ ID (142)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (142)
W 213	Artificial or Unknown found in <213> in SEQ ID (143)

**Input Set:**

**Output Set:**

**Started:** 2007-11-09 16:10:30.175  
**Finished:** 2007-11-09 16:10:37.437  
**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 262 ms  
**Total Warnings:** 136  
**Total Errors:** 24  
**No. of SeqIDs Defined:** 148  
**Actual SeqID Count:** 148

Error code	Error Description
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (143)
W 213	Artificial or Unknown found in <213> in SEQ ID (144)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (144)
W 213	Artificial or Unknown found in <213> in SEQ ID (145) This error has occurred more than 20 times, will not be displayed
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (145) This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> Steward, Lance E.  
Fernandez-Salas, Ester  
Herrington, Todd  
Aoki, Kei Roger

<120> Clostridial Neurotoxin Compositions and  
Modified Clostridial Neurotoxins

<130> 17355CIP3 (BOT)

<140> 10757077  
<141> 2004-01-14

<150> US 09/910,346  
<151> 2001-07-20

<150> US 09/620,840  
<151> 2000-07-21

<150> US 10/163,106  
<151> 2003-06-04

<160> 148

<170> FastSEQ for Windows Version 4.0

<210> 1  
<211> 7  
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<213> Clostridium botulinum serotype A

<400> 1  
Phe Glu Phe Tyr Lys Leu Leu  
1 5

<210> 2  
<211> 7  
<212> PRT  
<213> Rattus norvegicus

<400> 2  
Glu Glu Lys Arg Ala Ile Leu  
1 5

<210> 3  
<211> 7  
<212> PRT  
<213> Rattus norvegicus

<400> 3

Glu Glu Lys Met Ala Ile Leu  
1 5

<210> 4  
<211> 7  
<212> PRT  
<213> Rattus norvegicus

<400> 4  
Ser Glu Arg Asp Val Leu Leu  
1 5

<210> 5  
<211> 7  
<212> PRT  
<213> Rattus norvegicus

<400> 5  
Val Asp Thr Gln Val Leu Leu  
1 5

<210> 6  
<211> 7  
<212> PRT  
<213> Mus musculus

<400> 6  
Ala Glu Val Gln Ala Leu Leu  
1 5

<210> 7  
<211> 7  
<212> PRT  
<213> Xenopus laevis

<400> 7  
Ser Asp Lys Gln Asn Leu Leu  
1 5

<210> 8  
<211> 7  
<212> PRT  
<213> Gallus gallus

<400> 8  
Ser Asp Arg Gln Asn Leu Ile  
1 5

<210> 9  
<211> 7  
<212> PRT

<213> Ovis aries

<400> 9

Ala Asp Thr Gln Val Leu Met  
1 5

<210> 10

<211> 7

<212> PRT

<213> Homo sapiens

<400> 10

Ser Asp Lys Asn Thr Leu Leu  
1 5

<210> 11

<211> 7

<212> PRT

<213> Homo sapiens

<400> 11

Ser Gln Ile Lys Arg Leu Leu  
1 5

<210> 12

<211> 7

<212> PRT

<213> Homo sapiens

<400> 12

Ala Asp Thr Gln Ala Leu Leu  
1 5

<210> 13

<211> 7

<212> PRT

<213> Saccharomyces cerevisiae

<400> 13

Asn Glu Gln Ser Pro Leu Leu  
1 5

<210> 14

<211> 12

<212> PRT

<213> Clostridium botulinum serotype A

<400> 14

Met Pro Phe Val Asn Lys Gln Phe Asn Tyr Lys Asp  
1 5 10

<210> 15  
<211> 11  
<212> PRT  
<213> Clostridium botulinum serotype A

<400> 15  
Pro Phe Val Asn Lys Gln Phe Asn Tyr Lys Asp  
1 5 10

<210> 16  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<400> 16  
Met Tyr Lys Asp  
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<210> 17  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> (1)...(7)  
<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1)...(1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3)...(5)  
<223> Xaa is any amino acid.

<400> 17  
Xaa Asp Xaa Xaa Xaa Leu Leu  
1 5

<210> 18  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
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<223> Consensus sequence for Leucine-based motif.

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<222> (1)...(1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3)...(5)  
<223> Xaa is any amino acid.

<400> 18  
Xaa Glu Xaa Xaa Xaa Leu Leu  
1 5

<210> 19  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
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<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1)...(1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3)...(5)  
<223> Xaa is any amino acid.

<400> 19  
Xaa Asp Xaa Xaa Xaa Leu Ile  
1 5

<210> 20  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> (1)...(7)  
<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1)...(1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3)...(5)  
<223> Xaa is any amino acid.

<400> 20  
Xaa Asp Xaa Xaa Xaa Leu Met  
1 5

<210> 21  
<211> 7

<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> (1) ... (7)  
<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1) ... (1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3) ... (5)  
<223> Xaa is any amino acid.

<400> 21  
Xaa Glu Xaa Xaa Xaa Leu Ile  
1 5

<210> 22  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
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<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1) ... (1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3) ... (5)  
<223> Xaa is any amino acid.

<400> 22  
Xaa Glu Xaa Xaa Xaa Ile Leu  
1 5

<210> 23  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
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<222> (1) ... (7)  
<223> Consensus sequence for Leucine-based motif.

<221> VARIANT  
<222> (1) ... (1)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (3)...(5)  
<223> Xaa is any amino acid.

<400> 23  
Xaa Glu Xaa Xaa Xaa Leu Met  
1 5

<210> 24  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> (1)...(4)  
<223> Consensus sequence for Tyrosine-based motif.

<221> VARIANT  
<222> (2)...(3)  
<223> Xaa is any amino acid.

<221> VARIANT  
<222> (4)...(4)  
<223> Xaa is any hydrophobic amino acid.

<400> 24  
Tyr Xaa Xaa Xaa  
1

<210> 25  
<211> 50  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> PEPTIDE  
<222> (1)...(50)  
<223> Peptide comprising a 6x His tag and S-tag

<400> 25  
Met His His His His Ser Ser Gly Leu Val Pro Arg Gly Ser  
1 5 10 15  
Gly Met Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln His Met Asp  
20 25 30  
Ser Pro Asp Leu Gly Thr Asp Asp Asp Lys Ala Met Tyr Lys Asp  
35 40 45  
Pro Val  
50

<210> 26  
<211> 14  
<212> PRT

<213> Artificial Sequence

<220>

<221> PEPTIDE

<222> (1)...(14)

<223> Peptide comprising a 6x His tag

<400> 26

Asn Phe Thr Lys Leu Thr Arg Ala His His His His His His

1 5 10

<210> 27

<211> 8

<212> PRT

<213> Clostridium botulinum serotype A

<400> 27

Pro Phe Val Asn Lys Gln Phe Asn

1 5

<210> 28

<211> 22

<212> PRT

<213> Clostridium botulinum sertotype A

<400> 28

Lys Asn Phe Thr Gly Leu Phe Glu Phe Tyr Lys Leu Leu Cys Val Arg

1 5 10 15

Gly Ile Ile Thr Ser Lys

20

<210> 29

<211> 438

<212> PRT

<213> Clostridium botulinum sertotype A

<400> 29

Met Pro Phe Val Asn Lys Gln Phe Asn Tyr Lys Asp Pro Val Asn Gly

1 5 10 15

Val Asp Ile Ala Tyr Ile Lys Ile Pro Asn Ala Gly Gln Met Gln Pro

20 25 30

Val Lys Ala Phe Lys Ile His Asn Lys Ile Trp Val Ile Pro Glu Arg

35 40 45

Asp Thr Phe Thr Asn Pro Glu Glu Gly Asp Leu Asn Pro Pro Pro Glu

50 55 60

Ala Lys Gln Val Pro Val Ser Tyr Tyr Asp Ser Thr Tyr Leu Ser Thr

65 70 75 80

Asp Asn Glu Lys Asp Asn Tyr Leu Lys Gly Val Thr Lys Leu Phe Glu

85 90 95

Arg Ile Tyr Ser Thr Asp Leu Gly Arg Met Leu Leu Thr Ser Ile Val

100 105 110

Arg Gly Ile Pro Phe Trp Gly Gly Ser Thr Ile Asp Thr Glu Leu Lys

115 120 125

Val Ile Asp Thr Asn Cys Ile Asn Val Ile Gln Pro Asp Gly Ser Tyr

130	135	140
Arg Ser Glu Glu Leu Asn Leu Val Ile Ile Gly Pro Ser Ala Asp Ile		
145	150	155
Ile Gln Phe Glu Cys Lys Ser Phe Gly His Glu Val Leu Asn Leu Thr		
165	170	175
Arg Asn Gly Tyr Gly Ser Thr Gln Tyr Ile Arg Phe Ser Pro Asp Phe		
180	185	190
Thr Phe Gly Phe Glu Glu Ser Leu Glu Val Asp Thr Asn Pro Leu Leu		
195	200	205
Gly Ala Gly Lys Phe Ala Thr Asp Pro Ala Val Thr Leu Ala His Glu		
210	215	220
Leu Ile His Ala Gly His Arg Leu Tyr Gly Ile Ala Ile Asn Pro Asn		
225	230	235
Arg Val Phe Lys Val Asn Thr Asn Ala Tyr Tyr Glu Met Ser Gly Leu		
245	250	255
Glu Val Ser Phe Glu Glu Leu Arg Thr Phe Gly Gly His Asp Ala Lys		
260	265	270
Phe Ile Asp Ser Leu Gln Glu Asn Glu Phe Arg Leu Tyr Tyr Tyr Asn		
275	280	285
Lys Phe Lys Asp Ile Ala Ser Thr Leu Asn Lys Ala Lys Ser Ile Val		
290	295	300
Gly Thr Thr Ala Ser Leu Gln Tyr Met Lys Asn Val Phe Lys Glu Lys		
305	310	315
Tyr Leu Leu Ser Glu Asp Thr Ser Gly Lys Phe Ser Val Asp Lys Leu		
325	330	335
Lys Phe Asp Lys Leu Tyr Lys Met Leu Thr Glu Ile Tyr Thr Glu Asp		
340	345	350
Asn Phe Val Lys Phe Phe Lys Val Leu Asn Arg Lys Thr Tyr Leu Asn		
355	360	365
Phe Asp Lys Ala Val Phe Lys Ile Asn Ile Val Pro Lys Val Asn Tyr		
370	375	380
Thr Ile Tyr Asp Gly Phe Asn Leu Arg Asn Thr Asn Leu Ala Ala Asn		
385	390	395
Phe Asn Gly Gln Asn Thr Glu Ile Asn Asn Met Asn Phe Thr Lys Leu		
405	410	415
Lys Asn Phe Thr Gly Leu Phe Glu Phe Tyr Lys Leu Leu Cys Val Arg		
420	425	430
Gly Ile Ile Thr Ser Lys		
435		

<210> 30  
<211> 441  
<212> PRT  
<213> Clostridium botulinum sertotype B

<400> 30		
Met Pro Val Thr Ile Asn Asn Phe Asn Tyr Asn Asp Pro Ile Asp Asn		
1	5	10
Asn Asn Ile Ile Met Met Glu Pro Pro Phe Ala Arg Gly Thr Gly Arg		
20	25	30
Tyr Tyr Lys Ala Phe Lys Ile Thr Asp Arg Ile Trp Ile Ile Pro Glu		
35	40	45
Arg Tyr Thr Phe Gly Tyr Lys Pro Glu Asp Phe Asn Lys Ser Ser Gly		
50	55	60
Ile Phe Asn Arg Asp Val Cys Glu Tyr Tyr Asp Pro Asp Tyr Leu Asn		
65	70	75
		80

Thr Asn Asp Lys Lys Asn Ile Phe Leu Gln Thr Met Ile Lys Leu Phe  
                   85                     90                  95  
 Asn Arg Ile Lys Ser Lys Pro Leu Gly Glu Lys Leu Leu Glu Met Ile  
                   100                 105                 110  
 Ile Asn Gly Ile Pro Tyr Leu Gly Asp Arg Arg Val Pro Leu Glu Glu  
                   115                 120                 125  
 Phe Asn Thr Asn Ile Ala Ser Val Thr Val Asn Lys Leu Ile Ser Asn  
                   130                 135                 140  
 Pro Gly Glu Val Glu Arg Lys Lys Gly Ile Phe Ala Asn Leu Ile Ile  
                   145                 150                 155                 160  
 Phe Gly Pro Gly Pro Val Leu Asn Glu Asn Glu Thr Ile Asp Ile Gly  
                   165                 170                 175  
 Ile Gln Asn His Phe Ala Ser Arg Glu Gly Phe Gly Gly Ile Met Gln  
                   180                 185                 190  
 Met Lys Phe Cys Pro Glu Tyr Val Ser Val Phe Asn Asn Val Gln Glu  
                   195                 200                 205  
 Asn Lys Gly Ala Ser Ile Phe Asn Arg Arg Gly Tyr Phe Ser Asp Pro  
                   210                 215                 220  
 Ala Leu Ile Leu Met His Glu Leu Ile His Val Leu His Gly Leu Tyr  
                   225                 230                 235                 240  
 Gly Ile Lys Val Asp Asp Leu Pro Ile Val Pro Asn Glu Lys Lys Phe  
                   245                 250                 255  
 Phe Met Gln Ser Thr Asp Ala Ile Gln Ala Glu Glu Leu Tyr Thr Phe  
                   260                 265                 270  
 Gly Gly Gln Asp Pro Ser Ile Ile Thr Pro Ser Thr Asp Lys Ser Ile  
                   275                 280                 285  
 Tyr Asp Lys Val Leu Gln Asn Phe Arg Gly Ile Val Asp Arg Leu Asn  
                   290                 295                 300  
 Lys Val Leu Val Cys Ile Ser Asp Pro Asn Ile Asn Ile Asn Ile Tyr  
                   305                 310                 315                 320  
 Lys Asn Lys Phe Lys Asp Lys Tyr Lys Phe Val Glu Asp Ser Glu Gly  
                   325                 330                 335  
 Lys Tyr Ser Ile Asp Val Glu Ser Phe Asp Lys Leu Tyr Lys Ser Leu  
                   340                 345                 350  
 Met Phe Gly Phe Thr Glu Thr Asn Ile Ala Glu Asn Tyr Lys Ile Lys  
                   355                 360                 365  
 Thr Arg Ala Ser Tyr Phe Ser Asp Ser Leu Pro Pro Val Lys Ile Lys  
                   370                 375                 380  
 Asn Leu Leu Asp Asn Glu Ile Tyr Thr Ile Glu Glu Gly Phe Asn Ile  
                   385                 390                 395                 400  
 Ser Asp Lys Asp Met Glu Lys Glu Tyr Arg Gly Gln Asn Lys Ala Ile  
                   405                 410                 415  
 Asn Lys Gln Ala Tyr Glu Glu Ile Ser Lys Glu His Leu Ala Val Tyr  
                   420                 425                 430  
 Lys Ile Gln Met Cys Lys Ser Val Lys  
                   435                 440

<210> 31  
 <211> 4  
 <212> PRT  
 <213> Clostridium botulinum serotype A

<220>  
 <221> PHOSPHORYLATION  
 <222> (1)...(4)  
 <223> Tyrosine-based motif

<400> 31  
Tyr Ile Lys Ile  
1

<210> 32  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 32  
Tyr Asp Ser Thr  
1

<210> 33  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 33  
Tyr Gly Ser Thr  
1

<210> 34  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 34  
Tyr Asn Lys Phe  
1

<210> 35  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<220>

<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 35  
Tyr Met Lys Asn  
1

<210> 36  
<211> 4  
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<213> Clostridium botulinum serotype A

<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 36  
Tyr Leu Asn Phe  
1

<210> 37  
<211> 4  
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<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 37  
Tyr Asp Gly Phe  
1

<210> 38  
<211> 4  
<212> PRT  
<213> Clostridium botulinum serotype A

<220>  
<221> PHOSPHORYLATION  
<222> (1)...(4)  
<223> Tyrosine-based motif

<400> 38  
Tyr Lys Leu Leu  
1

<210> 39  
<211> 30  
<212> PRT

<213> Clostridium botulinum serotype A

<220>

<221> DOMAIN

<222> (1)...(30)

<223> Amino terminal 30 amino acids of light chain

<400> 39

Met Pro Phe Val Asn Lys Gln Phe Asn Tyr Lys Asp Pro Val Asn Gly  
1 5 10 15

Val Asp Ile Ala Tyr Ile Lys Ile Pro Asn Ala Gly Gln Met  
20 25 30

<210> 40

<211> 50

<212> PRT

<213> Clostridium botulinum serotype A

<220>

<221> DOMAIN

<222> (1)...(50)

<223> Carboxyl terminal 50 amino acids of light chain

<400> 40

Gly Phe Asn Leu Arg Asn Thr Asn Leu Ala Ala Asn Phe Asn Gly Gln  
1 5 10 15

Asn Thr Glu Ile Asn Asn Met Asn Phe Thr Lys Leu Lys Asn Phe Thr  
20 25 30

Gly Leu Phe Glu Phe Tyr Lys Leu Leu Cys Val Arg Gly Ile Ile Thr  
35 40 45

Ser Lys  
50

<210> 41

<211> 30

<212> PRT

<213> Clostridium botulinum serotype B

<220>

<221> DOMAIN

<222> (13)...(30)

<223> Amino terminal 30 amino acids of light chain

<400> 41

Met Pro Val Thr Ile Asn Asn Phe Asn Tyr Asn Asp Pro Ile Asp Asn  
1 5 10 15

Asp Asn Ile Ile Met Met Glu Pro Pro Phe Ala Arg Gly Thr  
20 25 30

<210> 42

<211> 50

<212> PRT

<213> Clostridium botulinum serotype B

<220>  
<221> DOMAIN  
<222> (1)...(50)  
<223> Carboxyl terminal 50 amino acids of light chain

<400> 42  
Tyr Thr Ile Glu Glu Gly Phe Asn Ile Ser Asp Lys Asn Met Gly Lys  
1 5 10 15  
Glu Tyr Arg Gly Gln Asn Lys Ala Ile Asn Lys Gln Ala Tyr Glu Glu  
20 25 30  
Ile Ser Lys Glu His Leu Ala Val Tyr Lys Ile Gln Met Cys Lys Ser